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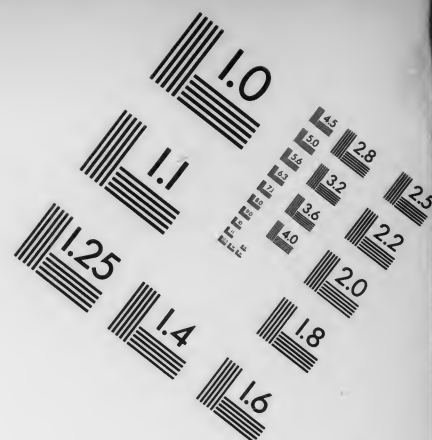
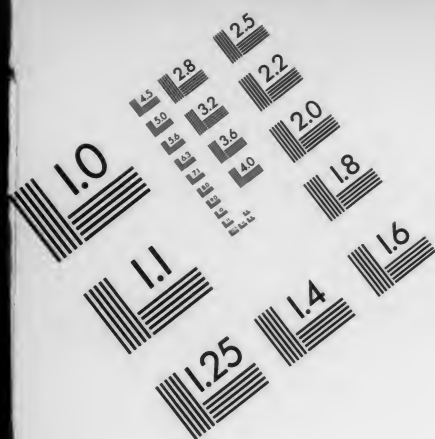


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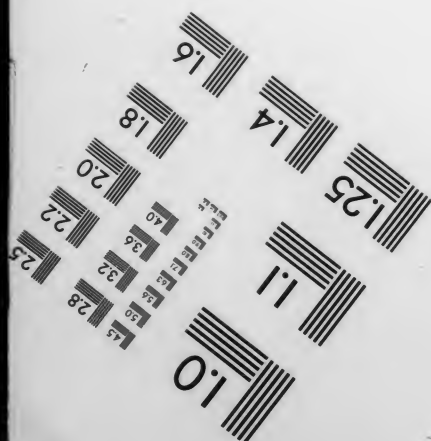
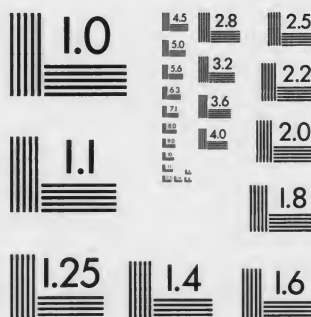
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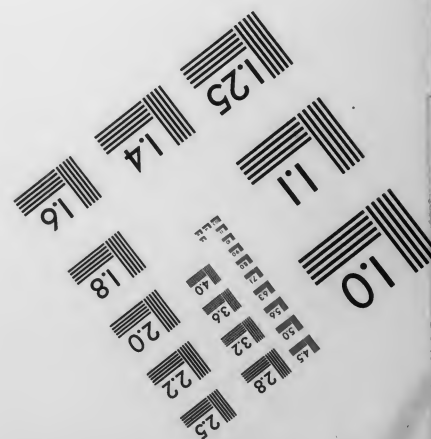
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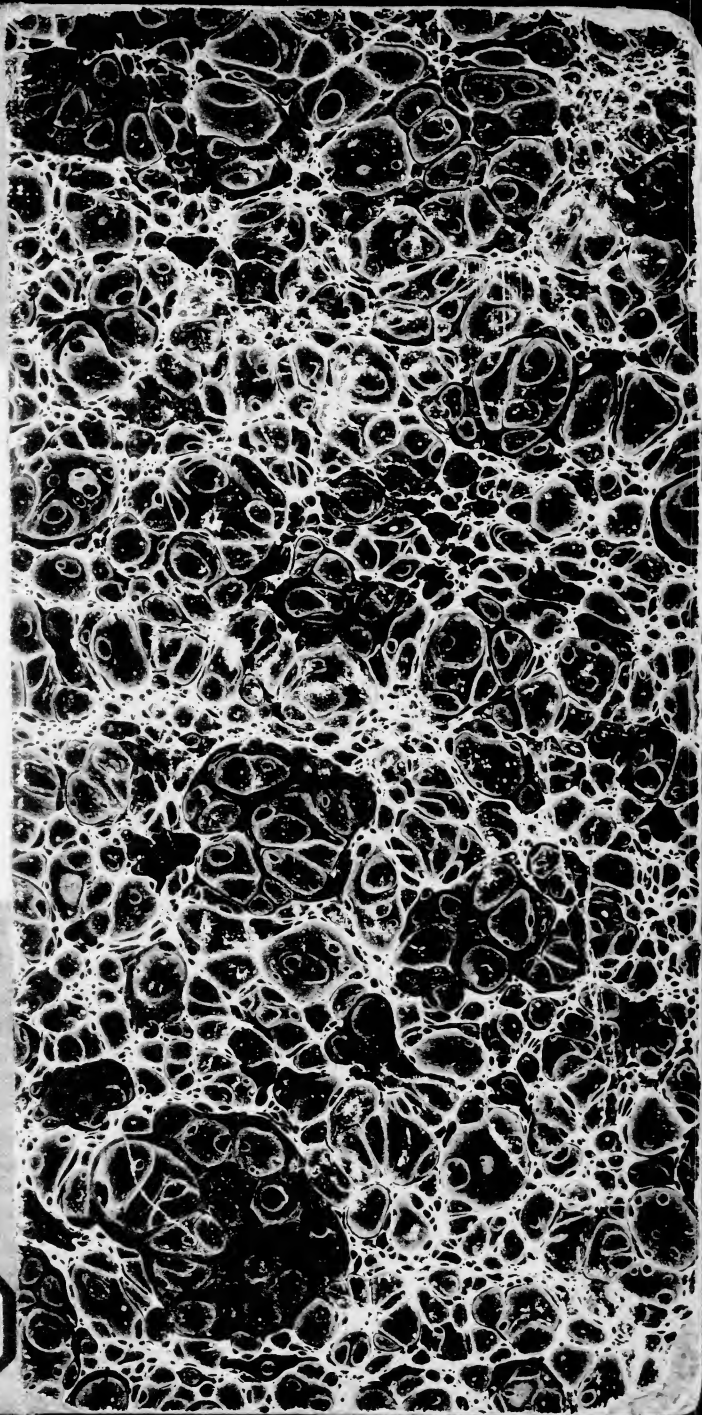
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An essay on the connection
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No. 1.

AN ESSAY

ON

THE CONNEXION

OF

REVEALED RELIGION

AND

MEDICAL SCIENCE,

WHICH OBTAINED

THE "WIX" PRIZE AT St. BARTHOLOMEW'S HOSPITAL

IN

1843.

BY HENRY MITCHELL,
STUDENT.

CAMBRIDGE :
PRINTED BY WARWICK AND CO., HOBSON'S-PLACE.

M.DCCC.XLIII.

ERRATUM.

Page 41, line 2, for "without it *is* illustrated by whatever," &c.
read "without it *are* illustrated by whatever," &c.

INTRODUCTORY REMARKS—The Doctrine of "Design" as evinced in the Creation of the Earth : of Plants : Irrational Animals, and finally of Man—Design evinced strongly in the formation and adaptation of the Organs of Respiration and the Circulation—Position and Prospects of Man as revealed in Scripture, and rendered probable by facts notorious in Medicine—Immortality of the Soul—Attributes of the Deity.—Concluding Observations on the connexion of Revealed Religion and Medical Science together with certain deductions.

INTRODUCTION.

"He that takes away Reason to make way for Revelation, puts out the light of both; and does much about the same as if he would persuade a man to put out his eyes, the better to receive the remote light of an invisible star by a telescope."

LOCKE'S *Essay on the Human Understanding*.

It is one of the proudest boasts of the Christian, that the Holy Religion which he professes courts inquiry; and, by challenging his reason, confirms his faith. For, although there may be, as there undoubtedly is, much in his faith which is beyond and above his unassisted reason, there is nothing which is contrary to his reason.

To select, therefore, some well-established science, and from facts never questioned in that science, to trace out analogies which render intelligible, or probable, certain facts occasionally questioned in religion—the doing this is but in conformity with the spirit of Christianity: is but carrying out the principle of being able to give "a reason for the hope that is in us."

Now, medical science (including in that phrase medicine, and all sciences tributary to medicine) is pecu-

liarly adapted for such selection, and for many reasons. Above all sciences it exhibits to demonstration the existence of a creating and provident intelligence; it is a science appreciated by many, unknown to none, and, strange to say, it is the science which has been perverted, in some instances at least, into an instrument for subverting religion, and defying the Godhead.

As medicine, then, has furnished the weapon of attack, let it also supply the armour of defence.

In thus endeavouring to demonstrate the credibility of Revealed Religion by an appeal to Science, we are not treading unfrequented ground: if we seek for authority or sanction in the "magic of a name," we may find it in Butler, in Paley, in Ray, in Clarke, in Derham, in Keill, in Newton, and in Locke. The example of men so pious and so learned, whilst it leaves the unpractised writer but slender hopes of compassing originality, removes at least from the attempt all charge of presumption or irreverence; and convinces us that, should we fail in our endeavour,

"We ought to blame the culture—not the soil."

AN ESSAY,

&c.

PART I.

THE DOCTRINE OF DESIGN.

WHEN we behold in science or in art, means nicely adapted to an end, and generally if not uniformly attaining that end—when we remark that certain causes are selected for producing certain effects, which effects they generally, if not uniformly, produce—then we are irresistibly led to imagine and infer the existence of Design; that is, we think it more probable that some designing agent has selected the causes and arranged the means, than that the causes and means should have arranged themselves, or should have fallen together by mere accident. And in proportion as the end to be obtained was lofty, or the effect mighty, in like proportion would the designer obtain credit for the successful accomplishment of his design.

Now, as it is evident that this position would be admitted by all fair disputants as applicable to art and

science, why is it not applicable to nature? If exact and uniform adaptation of certain means to a certain end, accomplished or accomplishing, infer design in art, why not in nature? If the means did not produce the end by chance in art, why by chance in nature? In effect: if art prove the existence of a designing artist, does not nature prove it also? Admit the position in one instance, and how, logically, can you deny it in the other?

Let us endeavour, then, to ascertain, whether in nature there exist means so nicely and so constantly adapted to an end, as to warrant us in pronouncing that adaptation the result not of accident but of design.

Let us draw our example from the Creation of Man, as revealed in the book of *Genesis*.

Now, as in an essay it is clearly impossible to detail the proofs of design afforded by every part of the animal economy, let us take our stand upon some one organ, or upon some one series of organs combined to produce some necessary function—the respiratory and circulatory systems are peculiarly eligible: and these systems are so peculiarly eligible, not because they prove design more clearly or more readily than other systems, but because they admit of being examined briefly, and without continuous appeals to minute anatomy.

In order that a being, such as man, may exist beyond the moment of his birth, it is necessary that there be ready prepared for his use, 1stly, a certain mixture of gases for him to respire; 2ndly, a certain fluid termed blood, on which the respired gases may produce a

determinate result; and, 3rdly, a series of organs in which the air and the blood may mutually act and react.

Assuming that our first parents were constituted,—that is, physically constituted as we, their descendants, are,—and there is no evidence that they were physically otherwise constituted: for it is recorded that Adam ate, and walked, and talked, and slept; then the three essentials above insisted on, were as necessary for their continued existence as for ours.*

In the first place, then, of Air: for that is the mixture of the gases intended for respiration.

Air was formerly considered an element: it is now ascertained to be a *mechanical mixture* of two permanently gaseous elements, oxygen and nitrogen: in the proportion of about 20 or 21 parts of oxygen to 80 or 79 parts of nitrogen, in 100 parts of atmospheric air. This relative proportion is observed with wonderful exactness, an exactness the more astonishing when we reflect upon the processes of deterioration and change always going on.

Observe, the air is not, as might have been anticipated, a *chemical union*: the oxygen and nitrogen are not chemically united, but merely mechanically mixed; for though oxygen and nitrogen may unite, and do unite to form many compound bodies, they—as it were

* Our first parents, doubtless, possessed many advantages, physical advantages, which we lack; but this does not imply that their organization was physically otherwise than, or contrary to, ours: their advantages were so many additional gifts, superadded to an organization unsullied and undepraved.

in defiance of a natural law—never unite to form atmospheric air.

And for this exception to a general law, the wisest, the most benevolent reasons may be assigned. Had it been ordained that the union of oxygen and nitrogen in the atmosphere should depend upon the higher attraction of chemical affinity, it is easy to perceive that the present beneficial results could not have ensued. The divellent force exercised by the lungs must have been proportionately increased, and the tranquil process of breathing must have been changed for one of violence and strong exertion.

All the active properties of the atmosphere are referable to the oxygen it contains: without oxygen, no animal can live; it is essential to life, and yet, curious to relate, by altering in any degree the relative amount of oxygen in the air, we endanger the existence of the respiring animal; diminish the oxygen, and the animal must perish from inaction and exhaustion; increase the amount of it, and the animal shall die from a morbid excess of vital function inducing fever.

Is there nothing in the foregoing observations to rivet our attention, nothing to confirm our faith in the doctrine of design? Is it by chance or by design that the air is a mechanical mixture, not a chemical union? that its composition is determinate, unchanged, and unchangeable? That oxygen exists in it in precisely the right proportion for cherishing life, and in no other? Which answer affords the more probable, the more reasonable solution?

We have hitherto viewed the atmosphere as a mixture of oxygen and nitrogen only, and in connexion with the respiration of animals only: but it is well known that plants respire, and equally well known that they cannot respire, since they cannot exist in, a mixture of oxygen and nitrogen only. Their very existence demands the presence of a certain principle in the air, named by Dr. Black "fixed air;" and since his time, more scientifically known as "carbonic acid gas." This carbonic acid gas exists in the air, at all times and in all places: as likewise does water, in the condition of aqueous vapour. Carbonic acid is a compound, consisting of equal volumes of oxygen and carbon,—a compound, in which carbon is in its highest degree of oxidation; it is heavier than air, and is a product of combustion, fermentation, and the respiration of animals. Although essential to the continuance of vegetable existence, it is speedily fatal to animal life, since no animal can respire in an atmosphere that contains carbonic acid to any amount. It will be observed, that the principles which are indispensable to animals, are noxious to vegetables; and that the principle which is necessary to vegetables, is destructive to animals. But since both animals and vegetables exist simultaneously, exist in security and in integrity, how is this seeming anomaly reconciled, this apparent discord converted into universal harmony? By the following arrangement; and the entire scope of the material universe cannot furnish an example of design more clearly demonstrative, more indubitably prospective.

The leaves, and perhaps some other green parts of plants, possess the wonderful power of absorbing and decomposing carbonic acid; of taking to themselves, as part of their vegetable structure, one element, the carbon, and of breathing forth again to the air the other element, oxygen. Plants perform this function, only when exposed to the direct rays of the sun, or to the diffused light of day; sun-light is essential to the due and constant process of decomposition.

It will be remarked, that plants abstract from the air carbonic acid, which is destructive to animal life, and evolve oxygen, which is essential; it will presently be shown, that animals, on their part, retain a gas that is useless to vegetables, and give off a principle hereafter to become their *pabulum vitæ*. Such, and so wonderful, is the harmoniously constructed mutual adaptation which—not the result surely of blind accident or mere chance—pervades and unites the systems of respiration in plants and animals.*

Having stated a few only of the many facts—facts unquestioned—connected with the atmosphere, and the relation of plants to that atmosphere, let us ascertain whether these unquestioned facts tend in any

* Vegetables are amongst the principal agents in purifying the atmosphere; but they are not the sole means of its purification: the equable diffusive power of gases, the ascent of heated carbonic acid through the air, the currents induced in the atmosphere by changes of temperature and electricity, may be enumerated as causes tending to the same effect; and in all probability, many other agents, unknown to us, are constantly in operation to produce the same beneficial result.

degree to confirm the history of creation, as revealed in *Genesis*; or, in other words, whether they in any degree render it probable that Creation is the work of a designing, fore-planning Author.

The Sacred Volume informs us that light and darkness were created: that the waters which had hitherto overspread the void and shapeless earth, were gathered together under the firmament, so that dry land appeared; and that subsequently to this, vegetables were created. Now the facts above detailed, render it most probable that this, and no other, must have been the established order of creation. Light and also air (implied in the expression, *firmament*), together with the dry land, must have appeared before vegetables, since vegetables are rooted in the dry land, and are stimulated by the light to decompose the air. That the entire earth was once overspread with water, geology establishes on sufficient evidence. Rooted in the dry land, and struggling as it were for existence, each herb and tree is silently but constantly preparing the atmosphere for an order of beings greater and higher in the scale of creation; and as light and air were created for plants that were subsequently to profit by such creation, so vegetables were gradually improving the air, and at the same time preparing themselves for a race of beings that was subsequently to profit by that existence.*

* In the present day, it is no uncommon occurrence to notice ferns, palms, and mosses preparing, as it were, desolate regions for future habitation.

And in due time that race appears: for irrational animals having been created, man enters a world already prepared for his reception.

That this was in reality the order of creation, both botany and geology agree in affirming; that this must have been the order of creation the present state of our knowledge renders as strongly probable as that we did not create ourselves, or were not created by mere accident. Man, then, having appeared in the world—that world being prepared for him—can we detect any appearance of design in the structure and arrangement of those means, by the agency of which he will continue in the world? And this brings us to consider,

2ndly. “That certain fluid, termed blood, on which the respired gases may produce a determinate result.” Now, concerning blood, physiologists differ greatly: they differ as to the method, and period, and process of its formation: they are ignorant of the organ or of the apparatus of organs, by which this important fluid is secreted or elaborated; but they all agree in assigning to it a post of the highest importance in the animal economy,—they one and all agree in the emphatic language of Scripture, that “the blood is the life,” for a gradual diminution of its amount brings us nearer and nearer to death, whilst a sudden abstraction of any quantity brings death itself. The blood is the fluid from which are derived the materials for the formation and nutrition of all parts of the animal body; it takes up the effete decomposed particles from the different tissues, for the purpose of their excretion by special

organs, and is renovated by the new nutrient matters poured into it by a system of vessels, known as lymphatics or absorbents.

The blood which is brought to the heart from the lungs by the pulmonary veins, and projected by the left ventricle through the aorta, and its branches into all parts of the body, has a *bright* red colour, that which returns through the venous system of the body to the right ventricle to be thrown by it again into the lungs, has a *dark* red colour. This *dark* or *venous blood* having performed the circuit of the body, becomes unfit for again stimulating into unwearied action its various organs; it must previously undergo some process of purification, some process of chemical change; it must in effect be converted from the *dark* red into the *bright* red, that is, from venous into arterial blood. To effect and secure the process of “arterialization,” (as the conversion of venous into arterial blood is termed) is the object and end of respiration. Impelled by the right side of the heart, venous blood rushes into minute and attenuated vessels spread out on the walls of the air vesicles of the lungs. A current of air and a stream of blood are thus brought into so close an approximation that nothing intervenes between the two fluids, but the fine membranes of which the air vesicles and the capillary branches of the pulmonary artery are composed; and these membranes being pervious to air, the air comes into direct contact with the blood, the two fluids react on each other, and in this manner is accomplished the ultimate object of respiration.

Upon examining the fluids thus exposed to this mutual action, it will be found that both have undergone remarkable but uniform changes. The air has lost oxygen and acquired a nearly equal volume of carbonic acid, whilst the blood has yielded up carbonic acid to acquire a nearly equal volume of oxygen; it has rejected that which was pernicious to obtain that which is vital, and by the change it loses its *dark* venous hue, and assumes the *bright* arterial colour,—it entered the lung unable to nourish the body, and unequal to maintain life: it quits the lung the very fountain and source of nourishment, the essential support of vitality.

All the manifold causes, concomitants, and effects of respiration have not here been enumerated, but it is conjectured that enough has been said to answer the ends proposed. Enough has been said to show clearly the mutual relation of animals and vegetables—to show that each system lives and performs its part not alone or selfishly, but for the general benefit of a mighty whole—to show that when one system rejects what is pernicious to its own welfare, it is but evolving a principle essential to some other system—to show that the harmony each system diffuses is but the counterpart of the harmony it enjoys.

Is, then, this exactly adapted mutual relation, this prospectively contrived rejection and adoption, this nice and pervading harmony, the mere result of some lucky chance, some fortunate accident? In this "mighty maze," is there traceable "no plan?" Or does this exquisite art exist without an artist?

3rdly. We will now briefly advert to the series of organs, by the instrumentality of which the air and blood are enabled to act and react on each other—the heart, the larynx, trachea, bronchi, and also the lungs. The blood, being necessary to nourish the tissues and to stimulate the organs, must be in motion to be borne to them. An apparatus is provided, partly for the purpose of originating an impelling force to put the blood in motion, and partly for the purpose of conveying the blood when in motion to the different parts of the body; the heart is the impelling organ, the great vessels in immediate connexion with it are the transmitting organs.

The *Heart* is divided into two sets of chambers, one for the reception of the blood from the different parts of the body, the other for the communication of the impulse which keeps the blood in motion. The chamber which receives the blood is termed an *auricle*, and is connected with a vessel termed a vein: that which communicates the impulse is termed a *ventricle*, and is connected with an artery. The auricles are situated immediately over the ventricles, from which they are separated by a *septum*, but with which they communicate by an opening (termed the auriculo-ventricular orifice), this orifice being guarded by an exquisitely contrived flood-gate or valve, which permits the blood to flow onwards in the proper direction, but prevents all regurgitation.

It is customary to divide the heart into a right and

left side, and to say that it consists of a right and left auricle, a right and left ventricle.

It is above stated, that in nourishing the tissues and stimulating the organs the blood parts with its nutritive and stimulating constituents, and receives in return some ingredients which can no longer be usefully employed in the economy, and others which are positively injurious. An apparatus must be established, then, for its renovation and depuration: this organ is the lung, and to this organ the blood must in like manner be conveyed.

Thus the blood moves in a double circle, one from the heart to the body, and from the body back to the heart, termed the *systemic* circle; the other from the heart to the lung, and from the lung back to the heart, termed the *pulmonic* circle. Hence, the human heart is double, consisting of two corresponding parts, precisely the same in name, in nature, and in office; the one appropriated to the greater, or the systemic, the other to the lesser, or the pulmonic circulation. There is a complete separation between these two portions of the heart, formed by a strong muscular partition, which prevents any communication between them, except through the medium of vessels.

From this meagre and imperfect account of the heart, enough only being given to understand the theory of its action, let us trace the circulation of the blood through it. The veins which carry the blood to the right or pulmonic chambers are two, one of which

brings it from the upper, and the other from the lower parts of the body; the first is called the superior, and the second the inferior, *vena cava*. Both pour their blood into the *right* auricle; from the right auricle it passes into the *right* ventricle, from which springs the artery which carries the blood from the heart to the lung, the *pulmonary artery*: this is the pulmonic circle.

From the lung, the blood is returned to the heart by four veins, termed pulmonary veins, which pour the blood into the *left* auricle; from the *left* auricle it passes into the *left* ventricle, from which springs the artery which carries out the blood to the system, termed the *aorta*: this is the systemic circle. In the system, the minute branches of the aorta unite with the minute branches that form the *venæ cavæ*, which return the blood to the right auricle of the heart: and thus the double circle is completed.

In this manner, then, is the heart's action continued, unwearied, unaltered, uninterrupted, from the first breath that betokens life, to the final expiration that announces death.

The heart, contracting with a pressure of sixty pounds, pumps through itself the whole mass of circulating fluid, about twenty-eight pounds, say, twice in every five minutes, or twenty-four times in every hour.

In order that the blood shall proceed in the proper direction, and in no other, certain flood-gates or valves are contrived, which by their peculiar construction and position, prevent all reflux and regurgitation, and com-

pel, as it were, the current to pursue the proper direction; valves are as essential for the heart to act effectively, as they are for a common pump to act effectively; and the arrangement is as mechanical and as clearly necessary in one case as in the other. The contraction of the *ventricles* would drive the blood into the *auricles* and veins, as well as into the arteries, if the valves were not so constructed and attached as to allow the expulsion of the blood only in certain directions; and when the contraction of the *ventricle* ceases, regurgitation from the arteries cannot take place, for the blood itself presses down the valves, towards the centre of the vessel, and spreads them out, so as to close the orifice; thus the heart, by this arrangement of its valves, is constituted a kind of forcing-pump.

The force exerted by the heart is vital; it is distinguished from mechanical force, in being produced by the very engine that exerts it. In the best constructed machinery, there is no real generation of power: there is merely concentration and direction of it; but the heart produces a force equal to a pressure of sixty pounds, by the gentlest application of a bland fluid. Here no force is communicated to be again given out, as in every mechanical moving power; but it is new power, power really and properly generated; and this power is the result of vital action, and is never in any case the result of action that is not vital.

To guard an organ of so great importance, the heart is enclosed in the bony walls of the thorax, and is, moreover, invested with a tough, strong, membranous tis-

sue, the *pericardium*, which surrounds it in such manner as to protect its substance, without confining its motion; the inner surface of this membrane is continually bedewed by a serous secretion, which keeps the heart in a state of suppleness and moisture. The action of the heart is involuntary; had it been otherwise, our constant care, our unrelaxing attention to a function so essential, would leave us leisure for nothing else.

The *Larynx, Trachea, and Bronchi*.—The windpipe is a tube which extends from the mouth and nostrils to the lung; it is attached to the back part of the tongue, and passes down the neck, immediately before the *esophagus* (the tube which leads to the stomach). In different parts of its course, the windpipe is differently constructed, performs different offices, and receives different names. The first, or uppermost division, is termed the larynx, the second the trachea, the third the bronchi; it is preserved as a rigid, open tube, by the disposition of certain highly organized cartilaginous rings.

The *larynx* is the organ of the voice, and, viewed in this capacity, its conformation exhibits many and wonderful adaptations to the circumstances that regulate sound: but it is only as an organ of respiration that we are here called upon to examine it. At its upper part, is a narrow opening of a triangular figure called the *glottis*, by which air is admitted to and from the lung; immediately above the opening is placed the cartilage which obtains its name from its situation, *epi-glottis*; this is attached to the root of the tongue, and may be

distinctly seen in the living body by pressing down the tongue. As the glottis is situated so immediately before the esophagus, how is it that food intended for the esophagus so rarely passes into the glottis? By an arrangement as beautiful in its contrivance as it is beneficial in its result: during deglutition the epi-glottis is carried completely over the glottis, partly because it is necessarily forced backwards when the tongue presses backwards in delivering the food to the *pharynx*; partly because it is carried backwards by certain minute muscles which act directly on it; and perhaps also partly in consequence of its own peculiar irritability: thus then is a bridge formed by which the foreign matter may reach its destination without risk or fear of danger. The moment the action of deglutition has been performed, the epi-glottis springs up from the aperture of the glottis. Not only does the glottis reject the touch of a crumb of bread, or of a drop of water, should any crumb or drop accidentally fall into it, with a spasm that convulses the whole frame, but it actually refuses to admit, actually closes itself against certain gases destructive to animal life; all the acid gases, for instance (excepting carbonic acid), chlorine, nitric oxide, fluoboric acid gas, fluosilicic acid gas, and ammonia. Here then is an ever-watchful sentinel, who not only gives the alarm but repels the attack. Yet this irritable organ so painfully impatient of offence, is serenely passive on the inspiration of common air. Thus do we owe our safety to its sensibility, our comfort to its repose.

The second portion of the windpipe, termed the *trachea*, commences at the under part of the larynx, and extends as far as the third dorsal vertebra, opposite to which it divides into two branches termed the *bronchi*.

One of these branches termed the right bronchus, goes to the right lung, the other branch, the left bronchus, goes to the left lung. The bronchial tubes do not divide to any great degree of minuteness when they arrive in the lung, but terminate abruptly in *air vesicles*. These vesicles have been before mentioned as those, on the membranous walls of which the ramifications of the pulmonary artery are found. The junction of air vesicles and blood vessels constitutes the lung; for the lung is composed of air vessels and blood vessels united and sustained by cellular tissue, and inclosed in a thin, firm, membrane, the *pleura*. This pleura is a serous membrane, exceedingly thin and delicate, but still firm, which lines the inner surface of the walls of the thorax, and is reflected over the lungs.

A fold of each pleura extends from the spinal column to the *sternum*, dividing the cavity of the thorax into two parts; this portion of pleura is termed the *mediastinum*. The two lungs occupy the sides of the chest; they are completely separated from each other by the membranous partition just described; between the two folds of the mediastinum, namely, in the middle of the chest, but inclining somewhat to the left side, is placed

the heart, enveloped in another serous membrane, the *pericardium*.

In the living body, the lung on each side completely fills the cavity of the chest, following passively the movements of its walls, and accurately adapting itself to its size; consequently, during life, there is no cavity, the chest being always completely full; the pleura which invests the lungs, and that which lines the ribs, is continually lubricated by a serous moisture, which enables it to play backwards and forwards with much ease, and without attrition.

The bony parietes of the thorax, from their arched form, are admirably adapted to afford secure protection to the important parts contained within them; whilst from their lightness, elasticity, and arrangement, they are no less adapted for incessant and easy motion.

The *rationale* of inspiration and expiration is as follows:—Atmospheric air, or perhaps the instinctive desire for respiration, irritates the nerves concerned therein; these impart or communicate that irritation to the respiratory muscles, and by their agency the ribs rise, a certain muscle dividing the thorax from the abdomen, termed the diaphragm, descends, and the lungs passively following all movements of the parietes both elongate and expand. But by such elongation and expansion the air in the interior of the lungs becomes rarer than the external air,—or in the case of an animal breathing for the first time, a vacuum is created; the external air then rushes in and con-

tinues rushing in, until an equilibrium is established between the density of the air within the lungs, and the density of the external air.

At the instant that the expanding lung admits the current of air, it receives a stream of blood—the air rushes through the trachea to the air vesicles—the blood flows through the trunks of the pulmonary artery to its capillary branches, spread out on the walls of the air vesicles, driven by the contraction of the right ventricle of the heart; and thus are the air and the blood brought into contact. But this act of inspiration—this raising of the ribs and descending of the diaphragm—calls into action the power of certain antagonistic muscles, the abdominal. These muscles exerting themselves pull down the ribs again—the diaphragm ascends—the cavity of the thorax diminishes, and the lungs are compressed, such compression diminishing their bulk, and forcing out the greater part of the contained air.

But at the same instant that a portion of air is expelled from the system, a stream of blood,—namely, blood that has been acted on by the air—arterial blood—is propelled from the lung, and is borne by the pulmonary veins to the left side of the heart, thence to be transmitted to the system, there to diffuse life and nourishment, unresting energy, unwearied activity.

Such is a brief account of the means and ends, the causes and effects for the sake of which, and by the instrumentality of which, the respiratory system “moves and has its being.”

From this brief outline, slender and imperfect as it confessedly must be, since its aim is rather to explain principle than illustrate detail—rather to inquire why organs act than to narrate how they act—in this brief outline can we detect any traces of that design which, if once admitted, must infer an intelligent, prospective designer? Or, is it merely a list of certain phenomena which occasionally follow each other, we know not why or wherefore, without order or without connexion? Is there no design traceable in the air as a *mechanical* mixture? Or, if it be a chance mixture in this case why do not oxygen and nitrogen form chance mixtures in any other case? If we admit chance at all, we must not limit it at all. If the adjustment of valves in the heart—valves which compel the fluid to assume one direction, and that direction the right direction—be brought about by chance, is the adjustment of similar valves in certain vessels the result of chance? or is the presence of valves in one system of vessels and their absence in another the effect of chance?*

Is it by chance that the glottis uniformly rejects food,—the esophagus never? Or, that the glottis uniformly admits atmospheric air, but never admits certain irritant gases? If these anatomical contrivances prove not design, then does no one work of human art prove design: if anatomy be chance, all is chance. The mind

* This allusion has reference to the well known physiological fact, that veins are generally provided with valves, the arteries never, since the valves of the aorta and pulmonary arteries at their origin, belong rather to the heart than to the arteries.

that does not see, or will not acknowledge design in the works of nature, ought to refer its scepticism to some inward defect of its own, rather than to any lack of external evidence.

But it may be contended by some, that what has been termed “a principle of generation,” will sufficiently account for all the phenomena in anatomy, without seeking farther or higher for a final cause. The reply to this will be, that “generation” is not a “principle,” but a process. Now a process is the “established method of producing any effect,” and evidently implies the adaptation of certain means to attain a certain end: but such adaptation would infer design. Thus “generation,” so far from disproving design, would but afford a striking instance of it.

Or, if it be urged that all we see may be referred, that is, finally referred, to the operation of the “laws of nature,” our answer will be in the well-known language of Paley, “A law pre-supposes an agent, for it is only “the mode according to which an agent proceeds; it “implies a power, for it is the order according to “which that power acts; without this agent, without “this power, which are both distinct from itself, the “law does nothing, is nothing.”*

* The “laws of nature,” so far from being, as they are sometimes conveniently assumed to be, inflexible and immutable, frequently bend to circumstances—instances of exception to, or modifications of, otherwise universal laws, are to be found in the mechanical mixture of the gases that compose air, and in the sudden *expansion* of freezing water, the objects attained by

It is sometimes urged, that as we in reality know nothing, so neither ought we in reality to speculate concerning these matters; but the fact of our not knowing everything, does not lessen either the value or the truth of the little we do know. We may not know how to construct or arrange the valves of a forcing-pump, but we do know that the construction and arrangement evidence intelligence; we know enough for our argument,—nay, more than this, we know enough to render it highly probable, that did we know more, our argument would appear yet more incontestable. Why then should we go out of our way to conjure up objections, when common sense and common experience alike pronounce a solution much more rational, and much more probable? We know *one* cause, and *only one*, capable of uniformly adapting certain means, to procure certain ends: that one and only cause is "*design*," the offspring of Intelligence. Let us then, quitting all quibbling sophistries and transcendental speculations, as useless—let us boldly and at once affirm, what all common sense and common experience forbid us to deny—let us at once acknowledge, that in creation we recognise "*design*;" let us at once declare that *God is the designer*.

But it may still be objected, that admitting a Deity designed the world, you have not proved He *created*

such exceptions render it infinitely more probable that a designing and benevolent being has pre-ordained the exception than that the "*laws of nature*" should suddenly and for the occasion relax their usual operation.

matter; a designer does not create, that is, does not of necessity create, he only arranges that which is already created. A man may arrange various parts in any given work of art, so as to constitute a forcing-pump: but he does not create one particle of matter,—he is a designer, but not a creator. How, then, is it to be proved that God is the Creator, and not merely the Designer? or why, since something must have always existed, may not matter have been that something?

Now, a complete and positive answer to this not unfrequent question is impossible; that is, our profound ignorance renders such an answer unattainable. We do not even know what this so called "*matter*" is, with which we make so vastly free in our speculations, and cannot therefore estimate either the duration of its existence, or the mystery of its creation; but we do know, that, admitting an Intelligent Designer of nature, we must allow His power to be infinite, since we can perceive no bounds to it, and to assert that any creation is beyond omnipotence, is to be guilty of a contradiction in terms. Probability,—a trust-worthy guide where mathematical certainty fails—probability would induce us to believe, that He who could animate dead matter with the principle of vitality; that He who can from elements, petty and discordant, elicit results mighty and harmonious; that He who can sustain and regulate each and every part of an entire universe, could also have created that matter which He compels into unflinching obedience. Besides all this, we daily see mind, an ex-

istence nobler than matter, created, not from matter, for it is *immaterial*, as will hereafter be proved, but created out of nothing; but if God can create a thinking, which is the nobler substance, out of nothing, *a fortiori*, He can create matter. This much common logic renders probable: and if the arguer from probabilities convinces not, no one will convince who admits that he is unable to define the infinite, or to ascertain the incomprehensible.

Thus, then, science, philosophy, and probability alike agree in corroborating the assertion, that "In the beginning, God created the heaven and the earth."

The preceding remarks have tended to show, that there is nothing unreasonable, nothing improbable, nothing opposed to science, or the present state of our knowledge in the Mosaic account of creation; and our endeavour has been rendered the more earnest by the reflexion, that of late years the books of Moses have been subjected to attacks, as uncalled for as they are unfounded.* These books have been characterised as

* In receiving the account of physical phenomena, as detailed in the early parts of the Old Testament, we must constantly bear in mind, first, the exceedingly metaphorical nature of the composition in which such detail is couched; and, secondly, the utter ignorance in physical science of the readers to whom the descriptions are addressed: so that evidently, the sacred writers sought rather to adapt such descriptions to the limited comprehension of the reader, by making use of well-understood images or generally received expositions, than to aim at elaborate explanations, which, though more correct, would prove altogether useless, because altogether unintelligible.

utterly opposed to all science, and as unessential to Christianity—in short, as documents that may be received or rejected, as best suits our fancy or our convenience.

That they are not utterly opposed to science, a perusal of the foregoing pages will, it is hoped, go far to satisfy the reader. That those books which were deemed worthy of frequent quotation by Christ himself, are unessential to Christianity, is a proposition that will be assented to by those only who imagine, that tamely yielding up the out-works of our faith, is the way to secure the "Holy of Holies" itself from desecration. Their reception or rejection is a question that a man must answer to his conscience and to his God.

But the world being created, and prepared for him, man is not only sent into it, but he is sent into it to occupy some peculiar definite position, that position being determined upon before his creation. "And God said, let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth." Thus man is not only to live and move on the earth, but to live and move a monarch on that earth; a monarch pre-ordained by Him whose image he reflects.

But, as in helpless infancy and drivelling old-age, the descendants of Adam are inferior in power to very many beasts of the field; and even in vigorous manhood, are inferior to not a few of them: how happens it that they

continue that dominion which their great Ancestor established?*

It is on account of his mental and reasoning faculties, that man preserves an undisturbed sway over brute force: it is his mind that subdues matter. Let us, then, examine the constitution of this mind, so essential to the well-being of man; and this examination shall be so brief, as barely to subject us to the charge of straying from medical into metaphysical science.

Observe then the faculty of *reason*, so necessary in its existence, so mighty in its results; observe the helps which are provided for the exertion of this faculty:—1stly. Attention, the power by which the mind fixes itself upon a subject. 2ndly. Curiosity, or the thirst of knowledge, a desire that renders any new idea the source of attraction, a desire proportioned to the novelty of objects, and consequently to our ignorance of them, a desire, the gratification of which teaches us all we know in infancy and early youth; and 3rdly. The powers of association whether natural or acquired.

Consider, moreover, the phenomena of *memory*, a faculty so important that without it no intellectual progress whatever could be made—consider the efficacy of *habit* in rendering that memory both ready and tenacious—the efficacy of habit in effecting our im-

* The brute creation appears, as it were by instinct, to acknowledge the natural superiority of man; for the strongest brute avoids him in general, and rarely attacks him, except in self-defence.

provement, both intellectual and moral, since it furnishes us with the chief, almost the only power we possess of making the different faculties of the mind obedient to the will.

Scan well these phenomena, and we can but admit, that these are means adapted and intended to produce some necessary end: we can but admit that not the heavens alone proclaim the glory of God, or the earth only shows forth His handy-work; but that “design” is evidenced in the mind, as in the body, by the selection of certain means to produce certain ends.

That the means selected are efficient to produce the end intended, all history past and present avouches, we read the fact in the conversion of roving barbarians into polished Athenians—in the transformation of lawless bandits into voluptuous Romans; and, aided by a pure and humanizing religion, in the change of blood-stained idolaters into civilized Christians.

It is not denied that this superiority over brutes may, in some degree at least, be ascribed to the peculiarly advantageous conformation of the human body, to the agility of our foot, to the swiftness and strength of our arm, to our upright and commanding position, to the quickness and extended range of our vision; but still all these physical advantages without the superintendence and co-operation of mind would have left us comparatively low in the scale of creation.

Such was man when he arose, as yet pure and unpolluted, to govern the teeming world delegated to his control; but something was still wanted to crown the

full measure of his bliss : though a monarch he was an hermit, with no one to share his empire or partake his bliss. " And the Lord God said : it is not good that the man should be alone, I will make him an help meet for him : " and then appeared Eve, the mother of us all.

If woman were destined as an " help " meet for man when she had but to partake of his perfect felicity, how " meet " an " help " she has become to him since his lapse from virtue and attending happiness, let all history declare.

It may be affirmed, without risk of contradiction, that woman, in every age, in all climes, has been the first and leading agent in humanizing and ameliorating society. Blot out her existence, and the physical world would lose half its beauty—the moral, all its light.

Our first parents so created, and so endued were the happy denizens of Eden, where sin and shame, desolation and anguish, were known but as a threat, were viewed but as possibilities that would never affect them with a sense of sorrowful reality. Viewing a creation so happy and so unruffled—man gifted with vast capacities for enjoying pleasure, and the universe abounding with means for supplying it—who, in picturing to himself such a world, can refrain from feeling that intensity of significance conveyed by the sacred historian in the words " and God saw every thing that he had made : and behold it was very good. "

After describing the work of creation, in a style sufficiently accurate to satisfy faith, if not sufficiently minute

to gratify curiosity, the book of Moses proceeds to detail the fall of man from virtue and happiness, and to relate the sad consequences of such fall.* These direful consequences unfortunately are too often experienced ; are too generally known to suffering humanity, to require proof from medicine, or any other science.

It has often been affirmed, that the numberless differences of colour, stature, and intellect, observable in the great family of man, seem to indicate that all mankind could never by any possibility have deduced their origin from one common stock. But this argument, however specious it may appear, is quite disproved by the researches of modern science, which demonstrate most unequivocally that mankind are not different *species* of one genus, but different *varieties* of one species. " The races of the human species, " says Müller, in his admirable Elements of Physiology, " answer to the " general notions of a race ; they are different forms of " one species, which are capable of fruitful union, and " are propagated by generation ; they are not different " species of one genus : for were that the case, their " hybrids would be unfruitful. Here, as in the case of " other animals, all the varieties are to be regarded as " aberrations from one type, caused partly by differences " in the progeny of the same parents, maintained by " repeated propagation of similar forms with one ano-

* The proofs of Man's Moral Nature being in a state of degradation must be in the recollection of all who read " Butler's Analogy ; " but as these proofs belong rather to metaphysical than medical science, they need not here be insisted upon.

"ther, and partly by the external influences of climate. "The causes which give rise to the varieties of species, "are partly seated in the organisms of the animals "themselves, and partly external conditions, such as "food, the elevation above the sea, and the climate. "Each species of plants and animals possesses within "itself a power of variation within a certain limit, quite "independent of any external influences."

There can be, therefore, nothing unphilosophical in adopting the Mosaic account of the manner in which this earth was peopled; especially when we reflect to how great an age the earliest inhabitants of this world attained, and how few diseases or disasters the natural simplicity of a pastoral life must have entailed. Even in these latter days, notwithstanding the wars, the excesses, and consequent mortalities that disgrace civilization, our largest towns have a tendency to double their population, in a space of time incredibly brief.

The antiquity, origin, and construction of certain languages, throws some light upon the matter under consideration. Speaking of the Hebrew language, the following passage occurs in "Home's Introduction:"—"Various circumstances combine to prove that Hebrew "is the *original* language, neither improved nor debased "by foreign idioms. The words of which it is composed are very short, and admit of very little flexion, "as may be seen on reference to any grammar or lexicon. The names of places are descriptive of their "nature, situation, accidental circumstances, &c. The "names of brutes express their natures and properties

"more significantly, and more accurately, than any "other known language in the world. The names of "various ancient nations also are of Hebrew origin, "being derived from the sons or grandsons of Shem, "Ham, and Japhet; as the Assyrians, from Ashur; "the Elamites, from Elam; the Aramæans, from Aram; "the Lydians, from Lud; the Cimbrians or Cimmerians, "from Gomer; the Medians, from Medai, the son of "Japhet; the Ionians, from Javan, &c.

"Further, the names given to the heathen deities, "suggest an additional proof of the antiquity and originality of the Hebrew language: thus Japetus is derived from Japhet; Saturn from the Hebrew word שָׂטָן (Satan) to be concealed, as the Latins derive Latium from "latere," to lie hid; because Saturn "was reported to have been concealed in that country "from the arms of Jupiter, or Jove as he is also called, "which name is by many deduced from Jehovah: Vulcan, from Tubal-Cain, who first discovered the use "of iron, brass, &c. Lastly,—the traces of Hebrew "which are to be found in very many other languages, "and which have been noticed by several learned men, "afford another argument in favour of its antiquity and "priority. These vestiges are particularly conspicuous "in the Chaldee, Syriac, Arabic, Persian, Phœnician, "and other languages spoken by the people who dwelt "nearest to Babylon, where the first division of languages took place."

PART II.

THE FUTURE PROSPECTS OF MAN.

SUCH as we have above detailed is the present position of man as recorded by Revelation, and confirmed by the results of common experience : but, do the Sacred Pages, that relate his fallen condition, afford no ground for hoping brighter things to come ? Is this admirable apparatus of organs placed beneath the control of a still more marvellously constructed mind, merely that he may deceive himself with day-dreams which death shall prove to be unsubstantial ? In this harmonious combination of mind and matter, shall nothing prove eternal but the silence of the dust ? If this be the case, the Creation of Man is a startling anomaly ; for mighty means produce but a common-place result.

We are not, however, abandoned to a state so utterly hopeless, for the Bible announces in terms too express to be misunderstood, that mankind is appointed to live in a future state ; “ that, then, every one shall be rewarded or punished, rewarded or punished respectively, for all that behaviour here, which we comprehend under the words virtuous or vicious, morally

“ good or evil, and that our present life is a probation, “ a state of trial and of discipline for that future life.” Let us enquire how far the science of Medicine, by analogy or positive fact, renders such promises in no degree incredible or improbable : and firstly of that which is the foundation of all our hopes, of all our fears—a *future life*.

That Mind, or the Soul, exists, is at least as evident as that Matter exists ; nay, some maintain, even more evident,* for all around us may be merely a creation of fancy, and often is nothing else : † but that Mind, that the sentient principle, that the thing or being which we call “ I,” and “ We,” and which thinks, feels, and reasons, should have no existence, is a contradiction in terms. To know, therefore, that we are, and that we think, implies a knowledge of the soul’s existence : but as this knowledge is altogether independent of matter, we have at any rate as safe an assurance of the existence of mind as we can possibly have of the existence of matter. But if this existing mind or soul be not *immaterial*, we have no ground from reason for presuming it immortal ; on the contrary, if it consist of material parts, or if it consist of any modification of matter—or if it be inseparably connected with any given peculiar conformation or organization of matter—then of necessity it

* The late Bishop Berkeley, in his “ Principles of Human Knowledge,” boldly asserts that we have no evidence of the existence of *any thing* external to our minds ; thus altogether denying the existence of matter.

† In dreams, in the delirium of fever, in *delirium tremens*, &c. &c.

must perish as the physical frame dissolves : for, though the body be not absolutely annihilated, yet every particular conformation or organization is absolutely annihilated, and the soul depending for its existence on such organization or form of matter, must of necessity share its fate.

The immateriality of the soul, therefore, is essential to its immortality. In the celebrated tale, *Rasselas*, Dr. Johnson has defined immateriality to be "a natural power of perpetual duration, as a consequence of exemption from all causes of decay."

There exist many and good grounds for believing that mind is altogether independent of, and altogether different from, matter ; that is, altogether immaterial.

In the first place—if any arrangement of, or combination in, matter, give birth to mind, this is an operation at once peculiar and unexampled ; for figure will produce figure still, when combined with figure, though different from what it was before ; but it will produce nothing else, save only figure : motion will produce only motion ; colour, colour ; smell, smell. But all the combinations you can imagine of figure, motion, colour, and smell, can only produce a new *combination*, in which there can be no absolutely new *quality* that was not there before. But the "Materialists" have to maintain that, by matter being arranged in a particular way, there is produced both the organized body, and something altogether different from it, and having not one of its properties—neither dimensions, nor weight, nor colour, nor form.

Again, the mind's independence of matter, and capacity of existence without it, is illustrated by whatever shows the entire dissimilarity of its constitution—the inconceivable rapidity of its operations, for example,—its power of calling up images in dreams, in a moment of time—and its power of abstracting itself from present scenes and present occurrences, even in our waking hours.

Another striking dissimilarity is found in the fact that mind is actually *created* every day ; whilst the material world affords no example of *fresh* creation : such as it was, in point of quantity, when its existence began, such it still is,—every part is subject to change, unceasing change ; but no one particle has, since the beginning of all things, been created or destroyed.

Again, a perfect image is reflected on a mirror, a lake of clear water, and on the retina of the eye : the conscious being alone, who uses the eye, recognises the image ; the eye itself no more perceives it than does the mirror or the lake, yet is the image equally well reflected in all cases. Now, admitting the soul can only in this case perceive *through* the help of the senses, how does it perceive *with* that help, if the agent of perception be not something superior to mere matter ?

All our ideas of annihilation are derived wholly from matter—from the examples of change undergone by matter ; but for the example of these changes we should not have even a notion of destruction or annihilation : but we have above shewn that matter, since the first dawn of Creation, *never has been annihilated* ; indeed,

when we speak of annihilation, we coin a word to which no precise meaning can be attached by our imaginations. Is mind, then, more liable to destruction than matter? Since we cannot, by any process of analogous reasoning, conceive anything ceasing to be, which once existed, surely it is more logical to conclude that mind, once created, continues to exist, than that it suddenly and at once perishes.

But, if it be demanded, why should not the mind, as the body, be changed or dissipated, or resolved into its elements? The answer is at hand. The mind differs from the body in this—it has no parts, it is absolutely one and simple; absolutely integral, indivisible, *indiscernible*, and consequently *indestructible*. "Whatever perishes," says Dr. Johnson, in *Rasselas*, "is destroyed by the solution of its contexture, and separation of its parts; nor can we conceive how that which has no parts, and therefore admits no solution, can be naturally corrupted or impaired."

The mind's independence of the body is frequently strikingly exemplified at the termination of many chronic diseases of a fatal nature, when,—with physical strength utterly prostrated, and the corporeal frame worn down to a very shadow of its former self,—the mind, still amid this wreck of matter unaltered and unimpaired, shall evince tokens of apprehension, memory, reason, all entire; shall evince, moreover, tokens of the utmost force of affection—a sense of character, of shame and honour, and the highest mental enjoyments and sufferings even to the last grasp.

It may also be remarked, that the physical capabilities of the body begin to degenerate from the age of thirty at the latest—its patience of fatigue, its power of continued active exertion, for example: not so the mind, which flourishes in the full vigour of its energy up to a very much greater age, and begins not to fail until the senses fail to supply it with impressions from the external world; for, as the senses are the channels by which mind communicates with matter, when these channels cease to convey impressions, the mind of course ceases to be cognizant of them, since it cannot respond to that which it is not permitted to appreciate. But here the defect resides not *in the mind*, the source of intelligence, but in the *bodily senses*, its ministers; whose duty it is to convey information—and even then, the mind will, as it were, retire within itself, and, forgetting a world that has almost ceased to disturb it—will ruminate as logically as ever upon by-gone scenes and by-gone occurrences.*

* When we employ the phrase "independence of matter," we neither assert nor imply that the laws that regulate matter do not, to a certain extent at least, modify the development and manifestation of mind; we merely affirm that material influence can affect or modify the *essence* of mind in no kind or degree: it is but reasonable that, whilst the mind resides in its "tabernacle of flesh," it should in some measure be amenable to the laws that regulate the world; for if man were sent into the world, and the noblest part of his nature might with impunity bid defiance to all the laws that regulate that world, what a scene of lawless confusion would disgrace all Nature! The mind is sufficiently influenced by the body to remind it that it must become a fellow-sufferer as well as a fellow-labourer.

But the crowning argument for the Soul's independence of, and dis-connexion with, matter, is derived from strict and accurate researches in Physiology. It is proved to demonstration, that each and every part of the animal body is continually undergoing the process of waste and repair : that effete particles are constantly being removed from the body, and fresh particles are as constantly being deposited to supply their place. This process goes on so rapidly and so uniformly that, in about the space of every five years (or perhaps less), the animal frame does not contain one single particle that, five years before, entered into its composition : the animal frame has, in that interval, undergone complete destruction, and as complete repair. This applies to every part of the body. But the mind remains unaltered amidst all this : every old particle in the brain has been removed, even the form—that is, the old form of the brain has disappeared—the old organization has been broken up—but the old mind, of perhaps fifty years duration, is still there : five times in those years has the brain undergone entire change ; but yet in that unaltered mind still dwell the scenes of our boy-hood, and the visions of our youth. This argument, the truth of which no one can deny, and the cogency of which ought neither to be evaded nor explained away, goes far to prove that there is nothing impossible in the notion that the soul can outlive the entire destruction of the body : whether that destruction be affected suddenly and at once, as by death, or slowly and by degrees, as in absorption, matters but little to the argument.

Destruction of the body by no means infers destruction of the mind ; and this position the above-quoted physiological fact appears to prove almost as rigorously as “ if one were to rise from the dead.” Now if death—that is the dissolution of the animal frame—be not destructive of the soul, it is scarcely imaginable that anything else can be.

Thus far our arguments have endeavoured to show the *possibility* of the soul surviving the body ; let us now turn to examine the *probability* of its doing so.

A firm and unswerving belief in the immortality of the soul, and in its existence in a future state, has prevailed, and still prevails, in every country—however polished or however barbarous—in the intellectual philosopher of Athens, and in the cannibal savage of New Zealand. Such belief appears, in fact, a principle, rather than a doctrine, a principle which a vast majority of men in all times and in all nations, has admitted as it were by instinct, and believed by intuition—a principle which has been, and still continues, the very ground-work of every religion under Heaven. The general prevalence of such belief in an hereafter is, to say the least, a remarkable phenomenon, and one that needs to be accounted for. A plausible explanation of it is the Divine implantation of the belief : if this solution be rejected, the objectors are bound to substitute a better. If not instinctive, the belief must have been generated and derived—let them show its generation—if they call it a conclusion, let them name the grounds of such conclusion. Let those who maintain the immortality of the

soul to be an error, show the origination of an error so generally adopted, so universally propagated.

It has been frequently objected that this belief in a future life formed no part of that most important religion—the Jewish—since no allusion to a future state is to be met with in the Old Testament.* This objection, however, is without weight, because without truth. Take, for instance, such passages as the following, and very many such may be produced :—“ Then shall the dust return to the earth, as it was ; and the spirit return unto God who gave it.” *Eccl. xii. 7.* “ And many of them that sleep in the dust of the earth shall awake, some to everlasting life and some to shame : and they that be wise shall shine as the brightness of the firmament ; and they that turn many to righteousness, as the stars, for ever and ever.” *Dan. x. 2.* “ I know that my Redeemer liveth, and that he shall stand in the latter days upon the earth : and though, after my skin, the worms shall destroy my body, yet in my flesh shall I see God.” *Job xix. 25.* Now, if these passages do not imply something stronger than a mere allusion to a future state, they are insignificant and hardly intelligible.

But not only are mankind impressed with an abstract belief in a future state, they are animated with “ a

* The objection, perhaps, ought rather to be stated thus :—no allusion to a state of future existence is to be met with in the *Jewish Law* as taught by Moses. For a full and satisfactory explanation, the reader is referred to Warburton's “ *Divine Legation.*”

“ longing after immortality ”—a passion so intense and so abiding, that every other passion dwindles into very insignificance upon comparison.

Do then, the firm belief in, the ardent hope for, immortality, indeed signify nothing ? Have they been implanted by a Benevolent Being, merely to awaken those aspirations of the soul that never can be satisfied ? Are they fictions utterly groundless, which in all places, in all ages, occupy and have occupied the thoughts—and, swaying the motives, have influenced the actions—of all mankind ? If these be not instincts, implanted for the guidance and consolation of fallen humanity, where, or how, are we to look for instincts at all ?

The supremacy of that guiding principle of our moral nature—the conscience (of which more will be said hereafter) seems in some measure to indicate immortality to man : for if it be designed to point out what is prudent in this life only (as some maintain), why, when this life draws towards its close, should conscience then be most awake ? why most exert itself, when all exertion is too late to be available ? Nature, who does nothing in vain, appears from this view to be using a cause that can by no possibility be productive of the desired effect ; or, indeed, be productive of any effect at all.

Again, the unequal distribution of rewards and punishments on this earth—that is, the misery in which virtue often exists, and the prosperity not seldom attendant upon vice—seems to demand and announce some future state in which equal justice may be rendered to all.

Again, as by mental culture, the soul improves and gradually rises towards perfection, if it were to be annihilated at the close of a long and well-spent life, would it not be annihilated precisely at that period when, nearest approaching perfection, it least deserved to perish?

The existence of the soul in a new state, after the dissolution of the body—nay, the existence of that body itself in a new state—is nothing contrary to the analogies uniformly observable in Medical Science. Can any future state be more unlike our present, than our present is dissimilar to the state in which we existed previously to birth? and yet, as we underwent so mighty a change at birth without injury to our soul, why may we not, by parity of reasoning, undergo as mighty a change in death, and with as little injury? Or how know we but that our death, like our birth, so far from terminating our being, may immediately, and in the natural course of things, put us into a higher and more enlarged state of being? Analogy certainly favours the supposition; and no one argument that can be adduced positively refutes it.

The present existence of our souls is in no slight degree a presumption for their future existence; since it is much more probable that existences once created should continue to exist, rather than cease to exist.

If there be a Creator and a Designer in the Universe—(and we have elsewhere endeavoured to prove that there assuredly is)—then must this great and mighty Author of Nature be a *Spirit*, for we dare not presume

Him to be *corporeal*: and, if a Spirit, then we have evidence that mind has existed, and does exist, *independent of matter*: Mind all powerful and all superior, because the *very Creator and Ruler of matter itself*.

But even if every argument here insisted on were untenable, there could be nothing incredible in the assertion, that He who could fashion the living, could also raise the dead—that He who could create the soul, could create it for eternity: and if reason threw no light on this important part of Revelation, there would be nothing preposterous in the belief that an Almighty Agent could easily decree immortality to man.

Thus have we endeavoured, by selecting a few arguments only, out of a crowd, to prove the possibility, credibility—nay, more, the probability of a future life.*

But the consideration that imparts so vital an interest to this future life, as revealed in the Scriptures, is the supposition that our happiness and misery hereafter, depend upon our actions here.

Now very many facts in Medical Science, tend to render this supposition probable, and that, to a very

* We are compelled to argue from probabilities only: for the writer who promises to *demonstrate*, by mere unaided reason, the immortality of the soul, promises too much. We are *assured* of immortality only in Revelation; in the Gospel only are “life and immortality brought to light.” This assurance must be received as an article of Faith. And strange enough it is, that men, who, in the ordinary affairs of life, draw so largely upon faith, should, nevertheless, refuse all faith when it is most essential. If Religion were reducible to a mathematical certainty, there would be no room for the exercise of Faith, and no merit in believing.

high degree. Few are prepared to deny that all we enjoy, and by far the greater part of what we suffer here, is put in our own power—that is to say, we can, or may, by foreseeing consequences, so direct our actions or shape our habits, as to secure a certain amount of pleasure, or avoid an uncertain amount of pain—we all are able to effect so much generally speaking. And if the Creator of the Universe have annexed delight to some actions, and uneasiness to others (and that he has done so can neither be denied nor doubted), then is He not only the Ruler of the world, but a Ruler who governs that world in accordance with a certain system—to wit, the system of *Rewards and Punishments*.

That we are in effect governed by a *system* of rewards and punishments, is, in Medical Science, rather a matter of every day experience, than a deduction of pure reason: it is a matter so evident as to render any minute examination altogether superfluous. For if our physical health and bodily integrity be not, in a great measure, dependent upon our own exertions, or consequent upon some prescribed observance of certain laws ascertained beforehand, then is the whole science of medicine an absurd impertinence—a romantic assumption, more arrogant than its worst enemies ever affirmed it to be.

Thus, then, medical experience most fully shows that there can be nothing incredible in the general doctrine of religion, that men shall be punished or rewarded *hereafter*, since every hour brings with it instances of a system of government which implies in it, rewarding and punishing *here*.

It is no valid objection to urge, in reply to all this, that offenders occasionally escape punishment; or, that punishment generally follows crime with a slow and halting pace: escape is the rare exception, not the abiding rule: the approach of the penalty may be slow, but who has not felt that it is certain? The debauchee may, like him of Babylon, revel in impiety; but the hand that decrees his fate is already writing on the wall: the obdurate may harden his heart, as did the Egyptian of old; but the sea is at hand that shall presently o'erwhelm him.

But the Creator of the world is not only the natural—He is also the Moral Governor of that world; and the phenomena observable in the moral constitution of man, render a state of future distributive justice yet more probable than do any phenomena observable in his physical constitution. Man is endued with a moral nature, with moral faculties of perception and action; and, by the essential constitution of this moral nature, he naturally and unavoidably approves certain actions as good, and reprobates certain others as evil. He thus approves and reprobates almost as it were involuntarily and intuitively, irrespective of all consequences which such actions may have produced, or may yet produce—he naturally approves virtue as virtue, and reprobates vice as vice.

Now, as this moral nature must have come from God, we can recognise in it a declaration, as it were, which side He is of, or what part He takes—a declaration that cannot be overlooked or denied—a declaration for virtue

high degree. Few are prepared to deny that all we enjoy, and by far the greater part of what we suffer here, is put in our own power—that is to say, we can, or may, by foreseeing consequences, so direct our actions or shape our habits, as to secure a certain amount of pleasure, or avoid an uncertain amount of pain—we all are able to effect so much generally speaking. And if the Creator of the Universe have annexed delight to some actions, and uneasiness to others (and that he has done so can neither be denied nor doubted), then is He not only the Ruler of the world, but a Ruler who governs that world in accordance with a certain system—to wit, the system of *Rewards and Punishments*.

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Now, as this moral nature must have come from God, we can recognise in it a declaration, as it were, which side He is of, or what part He takes—a declaration that cannot be overlooked or denied—a declaration for virtue

and against vice—a declaration which renders it probable to the highest degree that, if God reward at all, or punish at all, He will assuredly *reward virtue* and, *punish vice*.

And such we find to be the case, now, in this world ; for (besides the moral nature which God has given us, and our natural notion of Him as of a Righteous Governor) we may distinctly trace, amidst all the confusion, and wickedness, and disorder of men, the sure principles and beginnings of a moral government :—" By a moral government is implied," says the great Bishop Butler, " a government that consists not barely in rewarding and punishing men for their actions, which the most tyrannical person may do, but in rewarding the *righteous*, and punishing the *wicked*—in rendering to men according to their actions, as good or evil."

Is no such system perceptible here on earth? Can we fail to perceive that, everywhere, virtue brings its own reward—vice, its own damnation? That, everywhere, virtue is commended as beneficial to society : vice proscribed as prejudicial? That, everywhere, the most abandoned and licentious of nations, or of individuals, make open and formal professions of justice, veracity, and humanity—they " affect the virtue if they have it not?" that, everywhere, the " still small voice" of a reclaiming conscience—that last abiding representative and witness of Him who implanted it—will, amid the wildest anarchy of man's insurgent appetites and sins, loudly assert the certainty and severity of a coming vengeance? Can we fail to own the inhe-

rent pleasure of the virtuous, and misery of the vicious, affections? Can we, in short, blind ourselves to the palpable evidence that, in all places, in every age, the course of the world has been, and still continues, in support of virtue, and in condemnation of vice? We cannot fail to perceive all this, or to recognise all this; for it is a matter not of speculative opinion, but of every-day fact.*

Such are the principles of moral government perceptible even in this world : man is endued with a moral nature, and the moral government consists in rendering him happy or unhappy, in rewarding or punishing him, as he shall follow, neglect, or depart from the moral rule of action interwoven in his very nature. That reward or punishment does so follow, on compliance with, or departure from, the dictates of our moral nature, is notorious even to a proverb ; and it is remarkable that a life of uniform and unswerving morality procures not only that unruffled serenity which the world cannot give or take, but frequently secures many *physical* advantages—health and long life ; for longevity is intimately connected, almost necessarily connected with health and happiness. How clear must have been the perception of this truth in the mind of the Jewish

* It is worthy of note, that the sudden and involuntary acceleration of the circulation which we term "blushing," is an effect which looks to the impulses of a moral nature for its efficient cause ; and, as man is the only animal gifted with a moral nature, so is he the only animal endued with the "proud prerogative of blushing" (as an old author has quaintly said).

Legislator when he made the promise—"that thy days "may be long in the land which the Lord thy God "hath given thee,"—the sanction of every religious observance, and the motive to every moral duty.

Nor does suffering follow immorality less certainly, as the annals of medicine can attest from experience as ample as it is sorrowful: and such suffering is entailed not only on the actual offender, but too frequently on those connected with or descended from him—frequently is "the sin of the fathers visited upon the children even unto the third and fourth generation."

Thus, then, even this brief and far from complete review demonstrates that there can be nothing preposterous in the general doctrine of religion, that man shall be rewarded or punished *hereafter*, since such a system of government is but analogous to—is but of a piece with—the system that obtains *here*; and if, amid all the disorders and obstructions of a rebellious world, a system of moral government still progresses steadily but surely, have we no ground to hope, or, perhaps, to fear, that, in some future state of existence, when all disorders and all obstructions are removed, this same moral system shall advance even to its termination and fulfilment? Or, can we, blind to all analogy, and deaf to all probability, so deceive ourselves by sophistry, or so harden ourselves by infidelity, as to deem mere idle words, that solemn declaration—"for all these things, God shall bring thee to judgment?"

It is admitted, on all hands, that this moral government, as dimly seen and indistinctly comprehended by

us, may not appear the very perfection of moral government: but when we call to mind our own ignorance, our own short-sightedness, as viewing only a minute fraction of a mighty whole—when we reflect upon the many obstacles which a rebellious world may oppose to a moral system which operates slowly and by degrees—ought we not rather to infer that, if any imperfection exist, it resides not in the system, but rather in our observation of it?

That this state of present existence may be viewed as a state of *probation*, is, indeed, but a necessary corollary from the observations immediately preceding, since probation is implied in the very notion of moral government; for, if our physical and temporal interest be not forced upon us, or even offered to our acceptance, but only to *our acquisition*—and if we be in danger of missing our interest from any strong temptation to neglect or act contrary to it, or by any temptation which proposes particular and present enjoyment in the room of general and abiding advantage—then are we in a state of probation with regard to our physical nature—a state of probation, trial, or *physical* discipline; so morally, when allured by the snares and temptations of vice to forego the uniform discharge of duty, because such duty may be disagreeable, or even difficult, we are on the point of abandoning future interest, for present ease, then would it well become us to remember that we are in a state of *moral* probation, trial, or discipline.

Indeed, any man, who considers the physical and moral constitution of his species, together with the adap-

tation of external nature to such constitution, cannot but acknowledge that this world is peculiarly fitted—if not positively intended—to be a state of discipline for our improvement in virtue and piety; a state of discipline physical and moral, and passive as well as active—a state wherein we have to undergo difficulties as well as to struggle against them—to suffer as well as to act.

PART III.

THE ATTRIBUTES OF THE DEITY

AS DEDUCIBLE FROM MEDICAL SCIENCE COMPARED WITH HIS ATTRIBUTES AS REVEALED IN HOLY WRIT.

FROM the examination of the mighty works of the Creator, and of His probable designs as regards the rational and responsible portion of His creatures, let us, ascend to a consideration of the attributes of the Deity Himself.

If this investigation be conducted in a lowly and submissive spirit, there is nothing in it which can be charged with presumption, or deemed inconsistent with perfect and rational devotion—it is, in fact, but ascending through “Nature up to Nature’s God.”

For the wisest purposes it has pleased Providence to veil in awful mystery almost all the attributes of the “Ancient of Days,” beyond what natural religion teaches; for, although revelation introduces the Deity to human apprehension, under an idea more personal, more determinate, more within its compass, than the theology of nature can do—although we there are made more certain of His existence, and become acquainted

with his will—yet it is remarkable that his peculiar attributes are nearly the same in the volume of nature, and in that of His revealed word.

If, then, in careful imitation of Holy Writ, we confine our explanations to what concerns ourselves, without affecting more precision than the subject admits of, the attributes of the Deity may be brought in some measure within the span of our intellect, and the terms by which we characterise those attributes may be rendered consistent with our notions of truth and reason.

Design demonstrates the *Personality* of the Deity as contra-distinguished from the “Laws of Nature,” “a principle of generation,” or any other principle which, admitting efficacy, would exclude personal agency; for design is an emanation from mind, foreseeing and fore-planning: but wherever mind exists, it constitutes a *person*. We have endeavoured to show above that inert matter could not have arranged itself, but must have been arranged by some intelligent mind, that is, by some intelligent *person*. Design, therefore, if admitted, must prove *personality* more incontestably than it can prove any other position whatever.

The Unity of the Deity is deducible from the unity of design that pervades all nature: thus—that same influence of gravitation which draws downwards a floating feather, marshals all the planets around the sun; that same vital air which supports man, sustains an animal and cherishes a plant—it invests all parts of the globe, and connects all; that same electricity which flashes from the thunder-cloud, glitters in the northern lights; the

heat of the noon-day sun differs nothing from the heat of the common lamp, save only in intensity; the light of one star differs nothing from the light of another star, save only in degree; and light, from whatever source emanating, obeys the same laws of refraction and reflexion; the sexual system which obtains in the animal kingdom is continued also throughout the vegetable. Thus there exists a perfect unity—or, as it has been sometimes called, a *personality*—in the kind of contrivances in which the universe abounds, an unity which bears evidence to the universe being a spacious household under the one and consistent direction of Him, who is at once the Parent and the Master of an universal family.

The God who could have created the universe must of necessity be omnipotent, at least we cannot define His power: the God who can sustain and regulate an universe, must of necessity be omnipresent and all-knowing, for everywhere we recognise His presence, and admire His wisdom. He must be Self-Existent and Eternal; for any thing, or person, that is indebted to another prior existence for creation, cannot be God—since it or he depends, or did depend, on some original contrivance “*ab extra*.”

The goodness of God is the attribute that the whole science of medicine declares most audibly, most undeniably. (By medicine we here, as before, include all sciences subsidiary or tributary to medicine.) The general course of the world is in favour of happiness; and despite the misery and desolation that man wilfully

entails on all around and about him, this world is a happy world after all : and although it is the province of medicine to minister to the helpless and the hopeless, yet, amid the evil, there is perceptible "some soul" of goodness would men observingly distil it out."

This matter is worthy of a more attentive consideration.

Anatomy, or indeed common experience, renders it evident that enjoyment is *an* object and result of healthy organization, if not *the* ultimate object and result : sensation cannot be the ultimate object, for sensation is either pleasurable or painful—every sensation terminates in a pleasure or a pain. Now the production of pain is the indirect, not the direct—the extraordinary, not the ordinary—result of the actions of life : pain, therefore, may be the exception, but pleasure is the rule.

This happy disposition might have been otherwise ordered, had God not willed our enjoyment, or had He been merely indifferent to it. But the Creator has, as it were, gone out of the way, purposely to add pleasure to sensation, such pleasure being in no way essential to the production of sensation ; for example, it is essential that we should see, but not essential that the flowers of the field should be painted with ten thousand hues to delight our eye, all different yet all beautiful ; it is essential that we should hear, but not essential that nature's woodland warblers should break forth into a gush of choral melody—the hearing is essential, but not the music that delights it ; it is essential that we should eat, but not essential that our food should

leave upon the palate a sweet and savoury impression : yet how vast a fund of enjoyment is derived from prospects that delight, from harmony that entrances, or from banquets that entertain—all so many special provisions unnecessary and superfluous except for our enjoyment.

But if the pleasures that arise from the ordinary operations of sense form in the aggregate an incalculable sum, how great is the accession brought to this stock by endowments much higher in order,—the intellectual faculties ; and how much more intense, both in kind and degree, is the pleasure derived from sensation, the moment it becomes combined with an intellectual operation : how superior, for instance, is the intellectual conception of beauty to the mere perception of sense. The herds that graze the meadows breathe the scented air, they hear the song of birds, they view the ever-changing, ever-moving clouds by day, and see the watchful stars by night ; but these sights and sounds fall upon their senses dull and without effect : it is only to the ear of reason and of intellect that they discourse the eloquent music of nature—the poetry of heaven. And these enjoyments of intellect are not destroyed or impaired by being distributed among a multitude of partakers ; they gratify, and equally gratify, an unlimited number to an almost unlimited extent.

But there exist pleasures of another class, pleasures having no relation to a person's own sensation or happiness—pleasures springing from the perception of enjoyment in others—these have been by some metaphy-

sicians not inaptly denominated "sympathetic pleasures." How beautiful is the constitution of this part of our nature, by which the most transporting pleasures the heart receives are the direct reflexion of those it gives.

But we must not permit ourselves to be misled, as some have been, by any unreal or exaggerated idea of the benevolence of the Deity. There are some who would resolve the whole character of God into one attribute, that of a simple absolute benevolence—a placid undistinguishing tenderness; and in virtue of such assumption would despoil Him of all sovereignty, and all sacredness, of truth, of justice, and that strong repugnance to moral evil which has received the peculiar denomination of Holiness,—viewing him only as the Indulgent Father, and not also as the Righteous Governor of men.

Now any such assumption is absurd—absurd to the degree of being ridiculous, if the consequences were not of so awful a nature; it can be supported neither from revelation nor from the moral or natural system of this world's government. From both these sources we deduce this never-to-be-forgotten corollary, that God wills the happiness of man, but wills his virtue *more*; for, in effect and historical fulfilment, the greatest virtue and the greatest happiness are at one: and *only, only* mark! through the medium of virtue can any substantial or lasting happiness be realized. Nowhere in the physical world do we recognise any swerving from that strict line of justice which an upright Judge has instituted; immorality or irregularity beget their own pun-

ishment; nay, so exact and undeviating is the routine of the retributive system, that even folly or indifference—faults of the head, not heart—often entail serious inconvenience or positive suffering.

Whence, then, it may be demanded, do the supporters of this gratuitous assumption deduce analogies or probabilities on which to build up such an hypothesis? Assuredly not from a revelation, which tells that a fallen and degenerate world is saved *only* by the accepted sacrifice of an atoning Mediator; assuredly not from a constitution and course of nature which everywhere calls aloud that its God is Holy and Just, and that with Him is neither "variableness nor shadow" of turning.*

Do not these attributes of the Deity, demonstrable from medical science, correspond with His attributes as recorded in holy writ? Do not both concur in affirming that He is One—Self Existent—Eternal—Omniscient—Omnipotent—Benevolent—Just and Holy?

The arguer for the goodness of God is not unfre-

* Indeed we everywhere collect from the Bible, that God is not merely a God of Mercy, but a God of Justice. During the continuance of the first dispensation, the era of communications from God addressed to the senses, we continually learn that He severely punished His own chosen people, the Jews. He severely afflicted David, "a man after God's own heart," Hezekiah, and many other chosen servants, as a punishment for their neglect or moral guilt. And it is not a little remarkable, that the punishments so inflicted were in the majority of instances certain severe *diseases* and bodily ailments; indeed, we may gather from all parts of the Old Testament that the infliction of disease constituted a very essential portion of the Moral Government of God.

quently harassed with some such question as the following :—How, under the regency of an Almighty Being merciful and benevolent, do you consistently account for the vast amount of evil, unavoidable evil, that everywhere and at all times impends ?—Such question emanating from an individual hostile not only to Christianity in particular, but to all systems of religion in general. Now if such individual reject the solution of the origin of evil as recorded in Revelation, none other, in any degree satisfactory, ever has been adduced, or in all probability ever will be.

It is worthy of note that all nations, civilized or savage, believe and propagate a tradition which tells of a golden age, and a genial clime, in which their ancestors lived happily because virtuously ; and that, lapsing from this state of blissful enjoyment, sorrow and anguish and death were let loose as consequences and punishments. Such traditions, it will be remarked, embody the spirit, though not the letter, of Scripture information on the subject ; the universal prevalence, the universal adoption of such a solution over the whole earth, is an argument for its efficacy and its truth which the disbeliever ought neither to overlook nor undervalue.

But as has been implied above, if Revelation be questioned on this subject, any appeal to reason is as absurd as it is presumptuous ; the matter is so utterly, so entirely, beyond the scope of unaided intellect, that it is wonderful so much time and erudition should have been expended upon it.

We are, then, and must continue (if Revelation be doubted) profoundly ignorant of the whole matter—it

remains just where it was, in its mighty, unfathomed obscurity ; and the Atheist's question, captious as it is, proves nothing, but his own audacity and our short-sightedness.

But if we confine our observations to that only which affects ourselves, experience in general, but medical experience in particular, will furnish us with abundant evidences of the goodness of God even in the operation of those circumstances which we at once recognise as evils.

Pain is readily acknowledged an evil by all ; yet, from the operation of an evil so partial, how universal the good that accrues.

Does not pain act, as it were, in a conservative capacity, teaching vigilance and caution, both giving notice of danger, and exciting endeavours to avoid it ? Whole portions of our bodies might be, and would be, irretrievably injured, did not pain stand by as an ever-watchful monitor.

Severe pain cannot endure very long, it either ceases spontaneously, is relieved by art, or it destroys the sufferer ; for as there is a point of wretchedness beyond which life is not desirable, so is there a point beyond which life is not maintainable.

And that pain can be relieved at all, either by the skill of man or by the instrumentality of certain vegetable and mineral productions liberally scattered throughout the world, is in itself cogent evidence of the universal, untiring, goodness and mercy of God.*

* Surely, the natural power, which man possesses, of alleviating the sufferings of his fellow-men—of averting, or in some

Disease is an evil: but an evil which man's own immorality or neglect, or the immorality and neglect of his progenitors, have entailed upon him—this at least holds good in a vast majority of cases. Disease, as a rule, seldom proves fatal. On looking over the records of that truly noble institution, St. Bartholomew's Hospital (to which it is alike our pride and privilege to belong), one cannot fail to be struck with the rarity of death, as compared with the frequency of recovery. Now, as no cases are admitted into the wards, unless they be really of a serious nature, this fact in the statistics of disease tells forcibly in support of our argument.*

measure of softening down, the punitive consequences of their previous misconduct—surely this power, derived of course from God, tends, in a degree at least, to throw some light on that essential but much impugned doctrine of Christianity, the *Mediation of Christ*. The visible government which God exercises over the world, is by the instrumentality and *mediation* of others: from the cradle to the grave, we owe our life, our happiness, our exemption from misery, to the instrumentality and *mediation* of others—what, then, can there be, unnatural or preposterous, or contrary to analogy, or experience, or philosophy, or probability, in admitting Christ to be “a Mediator between God and man.” This analogy, if it stood alone or unsupported, might be deemed but a slender foundation to raise a positive opinion upon; but, at any rate it supplies an answer to a merely arbitrary assertion, without any kind of evidence, urged by way of objection against a doctrine, the proof of which is not from *reason* but *Revelation*.

* Disease, moreover, is the herald of death; for it both announces his approach, and at the same time prepares the patient and his friends for the blow. Disease is also one of the principal secondary causes (perhaps the principal secondary cause) in God's moral and natural government of this world.

There is inherent in the animal economy, a power or principle which resists the influence of any morbid impression; or labours, as it were, to obviate or remove the ill-effects of previously existing disease. We recognise the operation of this redeeming principle in the circumscription of abscesses in cellular tissue—in the gradual and safe removal of an extremity that has lost its vitality—in the adaptation of a dislocated joint to some new circumstance incident to its displacement, and in the spontaneous cure of innumerable diseases.

This inherent power or principle, termed by some writers the “*Vis Medicatrix Naturæ*”—striving at first to resist all disease; and, secondly, endeavouring to remove all bad results—ought assuredly to be adduced as a witness of the universal goodness of God.

Death is instinctively avoided by humanity, as the leading and crowning evil of all: but if the grisly monarch be confronted in the bold yet calm spirit of Christian Philosophy, his sting loses more than half its virulence. We have seen that, where pain becomes insupportable, or disease uncontrollable, death comes kindly as a relief; and in this case, so far from being the greatest evil, is an infallible remedy for all other evils—for, with whatever feelings of awe the thoughtless and the worldly may regard his steady advance, the sufferer, racked in body but yet prepared in mind, welcomes him as the usher to that repose where “the weary are at rest.” As immortality here is out of the question, it becomes a point for consideration whether, in our present fallen condition, the soul could part from

the body in a manner more easy or calmly than it does in the process of natural death : for the pang of death, if any, can be but momentary, and its terrors ought to prove unsubstantial to him, who, assured of immortality, views death, not as the termination of a life he wishes to renew, but as the commencement of an eternity he hopes to enjoy.*

* Certain infidel writers, misunderstanding the import of the word "Death," as used in the book of Genesis, have asserted that, as death is an essential, unavoidable, result of life, it is untrue and absurd to pronounce it the consequence and punishment of sin. On this subject, Bishop Jeremy Taylor has the following admirable remarks :—" Man did not die as death is taken for a separation of soul and body ; that is not death properly, but the ending of the last act of death. If Adam had stood, he should not always have lived in this world, for this world was not a place capable of giving a dwelling to all those myriads of men and women which should have been born in all the generations of infinite and eternal ages. The death, therefore, which God threatened to Adam, and which passed upon his posterity, is not the going out of this world, but the *manner of going*. If he had staid in innocence, he should have gone from hence placidly and fairly, without vexatious and afflictive circumstances ; he should not have died by sickness, misfortune, defect, or unwillingness : but when he fell, then he began to die, *the same day*—so said God, and that must needs be true ; and therefore it must mean that, upon that very day, he fell into an evil and dangerous condition, a state of change and affliction. Then death began, that is, the man began to die by a natural diminution and aptness to dis-ease and misery. Death is not an action, but a whole state and condition, and this was brought in upon us by the offence of one man."

PART IV.

DEDUCTIONS : AND CERTAIN CONCLUDING OBSERVATIONS.

It may, perhaps, be permitted to me, in this place, to introduce a few deductions in conclusion, which flow naturally from the subject, but which could not conveniently be classed under any of the foregoing divisions of the Essay.

And, firstly, concerning the miracles of our Saviour, as contrasted with the slow and gradual effects of any medical proceeding.

That any person, who could cure diseases instantly, and at once, must be some being higher and mightier than a mere mortal, is a truth that needs no discussion.*

* Indeed, our Lord and Saviour continually appeals to the miraculous healing of diseases as proofs of his divine mission and authority. When the Baptist sends two of his disciples to enquire " Art thou He that should come ? or look we for another ? " our Saviour, desires them to tell John " that the blind see, the lame walk, the lepers are cleansed, the deaf hear, and the dead are raised." Again, note His question to the Pharisees and Doctors of the Law,— " Whether is easier to say to the sick of the palsy, Thy sins be forgiven thee, or to say, Arise and walk."

The disbelievers of Christianity, therefore, have asserted one of two things—either that the diseases never were cured at all, or that, if cured, they were merely nervous disorders, which in many instances have been cured through the influence of the imagination only.

Whether they were cured at all is a question of historical accuracy which has been again and again discussed to the entire conviction of any impartial enquirer. Whether, if cured, they were merely nervous diseases that might have been cured by any body who possessed sufficient influence over the patient's imagination, is a matter that we will examine a little more in detail.

The custom of explaining away all miracles, by referring them solely to the operation of the ordinary laws of nature—thus making them miracles only in the imagination of the simple and uneducated who witnessed the effect without rightly understanding the cause—has of late prevailed but too much on the European continent. In Germany it is acknowledged as the staple dogma of a sect, whose constituent members appropriate to themselves the title of "Rationalists," a body of men who possess all the sophistry of the infidel, yet lack his courage to avow it, seeing that they admit the *letter* of Revelation, yet repudiate its *spirit* wherein alone consists its efficacy.

In order to confound these sceptics, nothing more is required than a full and fair examination into any given miracle, and all the circumstances attending or resulting from it.

Let us select the resurrection of Lazarus as an exam-

ple. The Evangelist St. John thus relates the event:—Lazarus fell sick, died, and was buried four days previous to the arrival of our Saviour. That he really had died, and was not merely in a state of trance, or coma, or catalepsy, is proved by the assertion of his sister, that decomposition of the body had already commenced.* Now decomposition of a body decides, at once and imperatively, that such body has ceased to live. At the mandate of our Saviour, Lazarus comes forth from the tomb—of the by-standers, many acknowledge Christ as God, whilst others hasten to inform the Pharisees "what things Jesus had done"—but all, be it remarked, by word or deed, admit the reality of the miracle, and the power of Him who wrought it. Now this simple narrative admits of no softening down—no explaining away; it is either wholly true or wholly false: if wholly false, would men, like the Pharisees, have declared in public council, "What do we? for this man doeth many miracles—if we let him thus alone, all men will believe on him."

Take again the cure of a man blind from his birth—this could not be a merely nervous disease. Again, the

* The writer is well aware that authorities differ as to the exact meaning to be attached to the observation of Martha—"Lord, by this time he stinketh, for he hath been dead *four days*." Some imagine that here Martha merely alludes to a notion very popular among the Jews, viz., that decomposition always commenced on the fourth day after death; others are disposed to believe that Martha here states not a matter of opinion, but a matter of fact. The writer of this essay adopts that meaning which appears to illustrate and corroborate his argument the better of the two.

cure of the nobleman's son, who lay sick of a fever at some distance from Christ at the very instant that our Saviour spake : the imagination of the patient cannot avail here, for he could not know the exact instant at which his father should happen to meet Jesus.*

The second deduction which appears to flow naturally from the subject, is to the effect, that a medical man, of all other men, should be among the last to deny or attack the truth of Revelation, on the ground that it is unintelligible or inexplicable.

That which hourly takes place around him, about him, and within him, his science in its proudest attempts, acknowledges as inexplicable, because unintelligible ; he lives, and moves, and operates, through the medium of agencies unintelligible and inexplicable : and if he cannot ascertain or comprehend the physical—the substantial—the corporeal ; how can he hope to define and analyse the metaphysical—the spiritual—the intangible ? To doubt the whole, where he cannot explain the whole, would be to disbelieve his own profession ; yet he disbelieves it not, seeing and understanding enough to render a firm belief in the whole, neither unreasonable nor unnatural. Let him argue in the same spirit with regard to Christianity, and he will deduce the same result ; let him constantly bear in mind that

* Many objections have been urged against the actual death and resurrection of our Lord and Saviour ; these objections have been most triumphantly refuted by Dr. N. Wiseman, in his "*Twelve Lectures on the Connexion between Science and Revealed Religion.*"

ancient remark "He who believes the Scripture to have proceeded from Him who is the Author of Nature, may well expect to find the same sort of difficulties in it, as are found in the constitution of Nature." And familiar as he must be with the death-bed of wretchedness and misery, let him ever be among the last to dissipate that cheering hope of immortality which, like the rainbow, displays itself most brightly in the darkest cloud.

CONCLUSION.

In the preceding observations, the writer of them, has constantly been indebted to the productions of our most esteemed English Theologians : he has almost constantly retailed the arguments of much better and much abler men, and has in no instance hesitated to borrow the truth, wherever he imagined the truth was likely to be found.

But with all these acknowledged advantages, he has but too good reason to fear, that the execution of his design, is in no degree commensurate with the high and holy dignity of its subject ; and when he pleads the difficulty of the undertaking, he prefers a plea that may account for imperfection, although it in no measure atones for it.

But, however limited may have been the measure of his success, it is consoling to reflect, that the Holy Religion he has endeavoured to substantiate, requires not his feeble support. A Religion which, in the beginning, propagated by twelve obscure fishermen of Galilee, succeeded in overcoming all the influence of Rome, and in silencing all the philosophy of Greece ; and in these latter days has shaken iniquity in its very strong holds,—can be in no peril of falling.

Christianity is so perfectly reasonable, so accurately adapted to the wants and wishes of humanity at large,

that it must flourish, that is, must ultimately flourish, wherever reason prevails, or wherever a fallen humanity suffers.

But although Christianity (humanly speaking) be certain of ultimate victory, it is not secure of undisturbed repose ; for, though, happily, there now exists no Nero who dares persecute, and no Felix who can enchain ; still the Atheist and the Deist, the disbeliever and the unbeliever, are as anxious as ever to disprove and subvert. Hitherto, however, their puny and ineffectual hostility has but aroused a band of defenders still more able, and much more successful.

The Christian of our own day has nothing to fear—yet everything to hope : his religion has alike stood the test of noisy persecution, and of silent contempt :—of all that could destroy, and all that could discourage :—of captious sophistry ; and of time—all-revealing —all-disproving —all-correcting —all-testing time ; by these infallible exponents of truth—these unerring detectors of imposture has Christianity been “ weighed in the balance ;” and the united voice of a thousand ages proclaims “ that it is *not* wanting,”*

* There may exist some points of connexion between Revealed Religion and Medical Science which may appear to have been omitted, or but slightly alluded to, in this Essay ; but the writer has everywhere been more anxious to establish broad and general principles than to trouble the reader with minute and comparatively insignificant detail. He has endeavoured, by analogies and probabilities, to enunciate the *leading principles* of our Holy Religion ; oftentimes rejecting detail, as tending to render longer a production which he fears has already run too long.

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